

# Knee osteoarthritis - effectiveness of mud therapy in clinical and functional improvement

Osteoartritis de rodilla - efectividad de la peloterapia en una mejoría clínica y funcional

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## Abstract

**Introduction:** Osteoarthritis is one of the pathologies which most limits the quality of life and functionality, having a negative impact on the level of participation of the individual and, consequently, in socio-economic terms. The mud therapy has been used in the treatment of rheumatic conditions since ancient times. However, there are few studies that evaluate the therapeutic effect and its application in knee osteoarthritis.

**Objectives:** To evaluate the efficacy of treatment with mud in knee osteoarthritis, particularly in terms of pain, function and quality of life.

**Methods:** Review of published literature until May 2014 using the Medline, EMBASE, AMED, Cochrane Library, Web of Science and Scopus.

**Results:** Of 132 articles initially identified were selected 34 randomized controlled trials which met the inclusion criteria: 17 evaluated the effect of mud therapy in pain (visual analog scale), 13 evaluated the functional improvement (using the WOMAC and LAI) and 4 evaluating the improvement of quality of life (AIMS, NHP and SF-36). Overall there was a statistically significant improvement in the different parameters analyzed in the group of patients under treatment with mud, compared with the control group (patients receiving drug therapy, physical therapy agents or other form of hydrotherapy).

**Discussion:** The studies show the therapeutic effect of mud in osteoarthritis of the knee, conditioning statistically significant improvement in pain, functionality and quality of life. The reduced number of studies, some populations of small dimensions, the short follow-up period and moderate risk of bias, as well as the variability of the various treatment programs with muds and the failure in their characterization (in biochemical and thermo-physical terms) are important study limitations that constrain the extrapolation of the results. However, few randomized

clinical trials have high methodological quality, so that the results are inspiring and should stimulate further studies, including studies focusing on the influence of mud at the level of biochemical markers, in order to evaluate the cost effectiveness when compared to the same drug therapy.

**Conclusion:** This study supports the literature regarding the efficacy of mud therapy in the improvement of pain, functionality and quality of life of patients with osteoarthritis of the knee.

**Key words:** Knee osteoarthritis, Balneotherapy, Mud therapy, Peloids

**Palabras clave:** Artrosis de rodilla, Balneoterapia, Fangoterapia, Peloides